

illumination and to the reflected indicia image, and non-transmissive to visible light. Because the cover is non-transmissive to visible light, the indicia on the reflective medium beneath the cover are substantially undetectable to human eyesight.

As stated in the Office Action, the Look reference does not teach the cover of claim 9.

Applicant submits that the Itoh et al. reference also does not teach the cover of claim 9. The portion of the Itoh reference cited in the Office Action discusses Japanese patent JP-A-3-154187 (the '187 reference), which teaches printing a record, such as a bar code, using a near-infrared absorptive ink, and overcoating the record with another ink having substantially no absorption in the near infrared, but absorption or reflection in the visible wavelengths. However, Itoh et al. do not teach placing a cover over an indicia that is that is transmissive to the infrared illumination and to the reflected indicia image, and non-transmissive to visible light

Since neither Look nor Itoh et al. describe a cover over indicia on a reflective medium that is transmissive to infrared light and non-transmissive to visible light, a combination of the Look and Itoh et al. references lacks this feature of claim 9. Therefore, claim 9 patentably defines over the combination of the Look and Itoh et al. references. Reconsideration and allowance of claim 9 is requested.

Claim 10, as amended, is an independent claim similar to claim 9, except that claim 10 describes graphic components over the indicia on the reflective medium. According to claim 10, the graphic components are transmissive to the infrared illumination and the reflected indicia image, but non-transmissive to visible light. Since claim 10 was not addressed specifically in the Office Action, Applicant is unable to respond regarding why claim 10 was rejected in view of Look and Itoh et al. However, Applicant submits that neither Look nor Itoh et al. describe graphic components covering indicia on a reflective medium, where the graphic components are transmissive to infrared light and non-transmissive to visible light. Thus, a combination of the Look and Itoh et al. references lacks this feature of claim 10. Therefore, claim 10 patentably defines over the combination of the Look and Itoh et al. references. Reconsideration and allowance of claim 10 is requested.

Claims 11 depends from independent claim 10 as amended, and describes additional important features of the invention. Since claim 10 was not addressed specifically in the Office Action, Applicant is unable to respond regarding why claim 11 was rejected in view of Look and Itoh et al. However, Applicant submits that

claim 11 patentably define over Look in view of Itoh et al. for at least the same reasons as discussed above for claim 10. Claim 11 further defines over the combination of Look and Itoh et al. because neither cited reference describes or suggests providing alphanumeric characters that are non-transmissive to visible light on top of indicia on a reflective medium. Reconsideration and allowance of dependent claim 11 is respectfully requested.

Claims 13-21 depend from independent claim 9 as amended, and describe additional important features of the invention. Therefore, claims 13-21 further patentably define over Look in view of Itoh et al. for at least the same reasons as discussed above for claim 9. Reconsideration and allowance of dependent claims 13-21 is respectfully requested.

In particular, claim 15 describes the apparatus of claim 9 as including a protective housing in which the light source and the light sensing device are both disposed. As noted in the Office Action, Look reference is silent on the structural description of the system. Thus, the Look reference does not describe a light source and a light sensing device contained within a single housing. Although it may be true that the Look system is designed to protect the components, the figure of the Look reference shows that the high-intensity illumination source (30) and the detector (40) are in separate housings, and are separated by the housing for the low-intensity source (20). Therefore, claim 15 further patentably defines over the Look reference. The Itoh et al. reference does not describe any housings for containing light sources or light sensing devices. Reconsideration and allowance of claim 15 is respectfully requested.

Claim 23, as amended, is directed to an apparatus for reading a bar code from a remote location. The apparatus of claim 23 includes a light source for providing illumination from a fixed location, and a retro-reflective medium operable to be disposed on a vehicle or container that is remote from the light source and moveable relative to the light source. According to claim 23, the retro-reflective medium includes the bar code that is operable to reflect the illumination provided by the light source. Portions of the illumination reflected from the bar code comprise a reflected bar code image. The apparatus also includes a light sensing device located remotely from the retro-reflective medium for receiving the entire reflected bar code image simultaneously and for generating a bar code image signal based on the reflected bar code image. A bar code processing system receives the bar code image signal and operates on the bar code image signal to extract bar code information there from.

As noted in the previous Office Action, the Look reference does not teach or suggest an indicia comprising a bar code. The Look reference also does not describe a light sensing device located remotely from a retro-reflective medium for receiving an entire reflected bar code image simultaneously.

It is asserted in the Office Action that Itoh et al. teaches a bar code reading system. This is true. However, Itoh et al. do not teach the *remote* bar code reading system of claim 23. The Itoh et al. reference merely describes an electronic bar code scanner, which requires medium containing the barcode be conveyed past the ray emitter 30 and the receivers 31 and 32. (Col. 5, lines 40-60.) This type of device generally cannot successfully scan a bar code if it is located remotely from the bar code.

Unlike the system described in the Itoh et al. reference, the light sensing device of claim 23 is located *remotely* from the retro-reflective medium. Further, unlike the bar code scanner described in the Itoh et al. reference, the light sensing device of claim 23 does not scan a bar code, but rather receives an *entire* reflected bar code image *simultaneously*. Thus, the light sensing device of claim 23 is not a bar code scanner such as described in the Itoh et al. reference.

Thus, neither the Itoh et al. reference nor the Look reference describe or suggest a light sensing device located remotely from a retro-reflective medium for receiving an entire reflected bar code image simultaneously. Therefore, claim 23 patentably defines over Look in view of Itoh et al. Reconsideration and allowance of amended claim 23 is requested.

Claim 24 describes an apparatus in which the light source and the light sensing device are contained within the same housing. Claim 24 recites a window in the housing through which the light source provides illumination, and the sensing device receives a reflected indicia image. Neither Look nor Itoh et al. describe or suggest such a structure. Therefore, claim 24 patentably defines over Look in view of Itoh et al. Reconsideration and allowance of amended claim 24 is requested.

Claims 25, 26, and 28 describe a license plate frame to which a reflective medium is attached. At least part of the frame is made of material that is transmissive to infrared and nontransmissive to visible light. Claims 26 and 28 further describe graphic components attached to the frame to hide reflective indicia from human sight. Neither Look nor Itoh et al. describe or suggest such structures. Therefore, claims 25,

26 and 28 patentably define over Look in view of Itoh et al. Reconsideration and allowance of amended claims 25, 26 and 28 is requested.

Claims 12 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Look (U.S. 5,915,032) in view of Itoh et al. (US 5,760,384), and further in view of Duret et al. (U.S. 4,605,946). This rejection is respectfully traversed, and reconsideration and allowance of claims 12 and 27 is requested.

Claims 12 depends from independent claim 10 as amended, and describes additional important features of the invention. Since claim 10 was not addressed specifically in the Office Action, Applicant is unable to respond regarding why claim 12 was rejected in view of Look and Itoh et al. However, Applicant submits that claim 12 patentably defines over Look in view of Itoh et al. and Duret et al. because none of the cited references describe or suggest providing alphanumeric characters that are non-transmissive to visible light on top of indicia on a reflective medium. Reconsideration and allowance of dependent claim 12 is respectfully requested.

Claim 27 patentably defines over Look in view of Itoh et al. and Duret et al. because none of the cited references describe or suggest graphic components attached to a frame surrounding a license plate to hide reflective indicia from human sight. Reconsideration and allowance of dependent claim 27 is respectfully requested.

Having now fully and completely responded to the Office Action, Applicant asserts that the claims are all fully in condition for allowance. Reconsideration and allowance are respectfully requested.

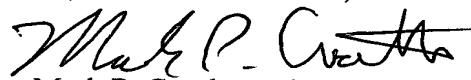
If the Examiner identifies further issues which may be resolved by telephone, the Examiner is invited to contact the undersigned at (865) 546-4305.

In the event that this response is not timely filed, Applicant hereby petitions for an appropriate extension of time. The fee for this extension, along with any other fees which may be due with respect to this response, may be charged to our deposit account No. 12-2355.

Sincerely,

LUEDEKA, NEELY & GRAHAM, P.C.

By:


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I hereby certify that this correspondence is being deposited on the date below with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington DC 20231.

10/6/03
Date

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